

Fig.1

CGAGGTGGGTGGAGTCCGGACTCCGGGCTACAGAGTCTCTGGCGCTCATCGCCTCTGG	60
CTCCAGCCTTTGCTTCGGGGGGCTGACCCCTTTGGGTCCCGGTGTGATCTCCAGCTGCCCC	120
CGGGGCTGGACAGCAGGGCGGGCGGAGCGGTGGAGGGGCTCTAGGACTCTGCGG	180
GCCCCGGCCCCCTCCGGGGGACCCGGAGCCAGCATGGACCACACTCGGGCGCCGC	240
AGCC	244
ATGGCGCTCGCCCCGCTGCTGCTGGCTGTGATTTTAGGGGCACTGTCTGTAGTGGCC	301
MetAlaLeuAlaArgCysValLeuAlaValIleLeuGlyAlaLeuSerValValAla	19
CGCGTGATCCGGTCTCGCGCTCTCCCTTCAACGCCCGCATCCGTCCCCACCGGTTCC	361
ArgAlaAspProValSerArgSerProLeuHisArgProHisProSerProProArgSer	39
CAACACGGCGACTACCTTCCCAGCTCGCGGGCCACCCAGGACCCCGCGCTTCCCCGCTC	421
GlnHisAlaHisTyrLeuProSerSerArgArgProProArgThrProArgPheProLeu	59
CCGCTGCGGATCCCCGCTGCCAGCGCCCGCAGGTCTCTAGCACCGGGCACACGCCCCCG	481
ProLeuArgIleProAlaAlaGlnArgProGlnValLeuSerThrGlyHisThrProPro	79
ACGATTCCACGCCCGCTCGGGGCAGAGAGTCGTGGGGCAATGCCACCAACCTCGGCGTC	541
ThrIleProArgArgCysGlyAlaGlyGluSerTrpGlyAsnAlaThrAsnLeuGlyVal	99
CCGTGTCTACACTGGACGAGGTGCCGCCCTTCTCTGGAGCGGTGCCCGCCGACGTTGG	601
ProCysLeuHisTrpAspGluValProProPheLeuGluArgSerProProAlaSerTrp	119

Fig.2

GCTGAGCTGCGAGGGCAGCCGACACAACTTCTGCCGGAGCCCGGATGGCTCGGCAGACCT	661
AlaGluLeuArgGlyGlnProHisAsnPheCysArgSerProAspGlySerGlyArgPro	139
TGGTGCTTCTATCGGAATGCCCAGGGCAAGTAGACTGGGGCTACTGCGATTGTGGTCAA	721
TrpCysPheTyrArgAsnAlaGlnGlyLysValAspTrpGlyTyrCysAspCysGlyGln	159
GGCCCGGCGTTGCCCGTCATTCGCCCTTGTGTGGGAACAGTGGGCATGAAGGTCGAGTG	781
GlyProAlaLeuProValIleArgLeuValGlyGlyAsnSerGlyHisGluGlyArgVal	179
GAGCTGTACCAACGCTGGCCAGTGGGGACCATCTGTGACGACCAATGGACAATGCAGAC	841
GluLeuTyrHisAlaGlyGlnTrpGlyThrIleCysAspAspGlnTrpAspAsnAlaAsp	199
GCAGACGTCATCTGTAGGCAGCTGGGCTCAGTGGCATTGCCAAAGCATGGCATCAGGCA	901
AlaAspValIleCysArgGlnLeuGlyLeuSerGlyIleAlaLysAlaTrpHisGlnAla	219
CATTTTGGGGAAGGATCTGGCCCAATATTGTTGGATGAAGTACGCTGCACCGGAAACGAG	961
HisPheGlyGluGlySerGlyProIleLeuLeuAspGluValArgCysThrGlyAsnGlu	239
CTGTCAATTGAGCAATGTCCAAAGAGTTCTCTGGGGCGAACATAACTGTGGCCATAAGAA	1021
LeuSerIleGluGlnCysProLysSerSerTrpGlyGluHisAsnCysGlyHisLysGlu	259

Fig.3

GATGCTGGAGTGTCTTGTGTTCCTCTAACAGATGGTGTTCATCAGACTGGCAGGAGAAAA	1081
AspAlaGlyValSerCysValProLeuThrAspGlyValIleArgLeuAlaGlyGlyLys	279
AGTACCCATGAAGTCGCCCTGGAGGTCTACTACAAGGGCAGTGGGGACAGTCTGTGAT	1141
SerThrHisGluGlyArgLeuGluValTyrTyrLysGlyGlnTrpGlyThrValCysAsp	299
GATGGCTGGACTGAGATGAACACACATACGTGGCTTGTCTGACTGCTGGGATTAAATACGGC	1201
AspGlyTrpThrGluMetAsnThrTyrValAlaCysArgLeuLeuGlyPheLysTyrGly	319
AAACAGTCCCTCTGTGAACCATTTTGATGGCAGCAACAGGCCCATATGGCTGGATGACGTC	1261
LysGlnSerSerValAsnHisPheAspGlySerAsnArgProIleTrpLeuAspVal	339
AGTGTCTCAGGAAAGAGTCAGCTTCATTTCAGTGTTCACAGGAGACAGTGGGGAAGGCAT	1321
SerCysSerGlyLysGluValSerPheIleGlnCysSerArgArgGlnTrpGlyArgHis	359
GACTGCAGCCATAGAGAAGATGTGGCCCTCACCTGCTATCCTGACAGCGATGGACATAGG	1381
AspCysSerHisArgGluAspValGlyLeuThrCysTyrProAspSerAspGlyHisArg	379
CTTTCTCCAGGTTTCCCATCAGACTAGTGGATGGAGAGAATAAGAAAGGACGAGTG	1441
LeuSerProGlyPheProIleArgLeuValAspGlyGluAsnLysLysGluGlyArgVal	399

Fig.4

GAGGTTTTCATGGCCCAATGGGAACAATCTGCGATGACGGATGGACCGATAAGCAT 1501  
 GluValPheValAsnGlyGlnTrpGlyThrIleCysAspGlyTrpThrAspLysHis 419

GCAGCTGTGATCTGCGCGCAGCTTGGCTATAAGGGTCTGCCAGAGCAAGGACTATGGCT 1561  
 AlaAlaValIleCysArgGlnLeuGlyTyrLysGlyProAlaArgAlaArgThrMetAla 439

TATTTTGGGGAAGGAAAGCCCCCATCCACATGGATAATGTGAAGTCACAGGAAATGAG 1621  
 TyrPheGlyGluGlyLysGlyProIleHisMetAspAsnValLysCysThrGlyAsnGlu 459

AAGGCCCTGGCTGACTGTGTCAAACAAGACATTTGGAAGGCACAACCTGCCGCCACAGTGAG 1681  
 LysAlaLeuAlaAspCysValLysGlnAspIleGlyArgHisAsnCysArgHisSerGlu 479

GATGCAGGAGTCATCTGTGACTATTAGAGAGAAGAAAGCATCAAGTAGTGGTAATAAGAG 1741  
 AspAlaGlyValIleCysAspTyrLeuGluLysLysAlaSerSerSerGlyAsnLysGlu 499

ATGCTCTCATCTGGATGTGGACTGAGGTTACTGCACCGTCGGCAGAAACGGATCATTTGGT 1801  
 MetLeuSerSerGlyCysGlyLeuArgLeuLeuHisArgArgGlnLysArgIleIleGly 519

GGGAACAATTCTTTAAGGGGTGCCTTGGCAGGCTTCCCTCAGGCTGAGGTCGGCC 1861  
 GlyAsnAsnSerLeuArgGlyAlaTrpProTrpGlnAlaSerLeuArgLeuArgSerAla 539

Fig.5

CATGGAGACGGCGCTTGTGGAGCTACCCCTTCTGAGTAGCTGCTGGGTCCCTGACA	1921
HisGlyAspGlyArgLeuLeuCysGlyAlaThrLeuLeuSerSerCysTrpValLeuThr	559
GCTGCACACTGCTTCAAAAGGTACGGAAACAACCTCGAGGAGCTATGCAGTTCGAGTTGGG	1981
AlaAlaHisCysPheLysArgTyrGlyAsnAsnSerArgSerTyrAlaValArgValGly	579
GATTATCATACTCTGGTACCAGAGGAGTTTGAACAAGAAATAGGGTTCAACAGATTGTG	2041
AspTyrHisThrLeuValProGluGluPheGluGlnGluIleGlyValGlnIleVal	599
ATTCACAGGAACACTACAGGCCAGACAGAACCGACTATGACATTGCCCTGGTTAGATTGCAA	2101
IleHisArgAsnTyrArgProAspArgSerAspTyrAspIleAlaLeuValArgLeuGln	619
GGACCAGGGGAGCAATGTGCCAGACTAAGCACCCACGTTTGTGCCAGCCTGTTTACCTCTA	2161
GlyProGlyGluGlnCysAlaArgLeuSerThrHisValLeuProAlaCysLeuProLeu	639
TGGAGAGAGAGGCCACAGAAACAGCCTCCCACTGTACACATAACAGGATGGGAGACACA	2221
TrpArgGluArgProGlnLysThrAlaSerAsnCysHisIleThrGlyTrpGlyAspThr	659
GGTCGTGCCTACTCAAGAACTCTACAACAAGCTGTGCTGCTGCTTACCCCAAGAGGTTT	2281
GlyArgAlaTyrSerArgThrLeuGlnGlnAlaAlaValProLeuLeuProLysArgPhe	679

Fig.6

TGTAAGAGAGGTACAAGGACTATTCTGGGAGAAATGCTCTGTGTGGGAACCTCCAA	2341
CysLysGluArgTyrLysGlyLeuPheThrGlyArgMetLeuCysAlaGlyAsnLeuGln	699
GAAGACAACCGTGTGGACAGCTGCCAGGGAGACAGTGGAGGACCACATCATGTGTGAAAAG	2401
GluAspAsnArgValAspSerCysGlnGlyAspSerGlyGlyProLeuMetCysGluLys	719
CCTGATGAGTCCTGGGTTGTGTATGGGGTGACTTCCTGGGGGTATGGATGTGGAGTCAA	2461
ProAspGluSerTrpValValTyrGlyValThrSerTrpGlyTyrGlyCysGlyValLys	739
GACACTCCTGGAGTTTATACCAGAGTCCCCGCCCTTGTACCTTGGATAAAAAGTGCACC	2521
AspThrProGlyValTyrThrArgValProAlaPheValProTrpIleLysSerValThr	759
AGTCTGTAACTTATGGAAAGCTCAAGAAAATAGTAAACAGTAACCATTCAGTCTTCATA	2581
SerLeu***	761
CTTGGCACCATGCCAGAAAAAATAAAAAA	2614

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Fig.7

CCGACGCGGTCCGCGCGCCTCTCCCGCGCTTCCCGCGCCCCCGCGCGCTCCCT 60  
 ProThrThrArgProProProProLeuProArgPheProArgProProArgAlaLeuPro 20  
  
 GCCCAGCGCCCGCACGCCCTCCAGCGCGGCACACGCCCGCGCCGCCACCCCTGGGCTGC 120  
 AlaGlnArgProHisAlaLeuGlnAlaGlyHisThrProArgProHisProTrpGlyCys 40  
  
 CCGCGCGCGAGCCATGGGTACGGCTACGGACTTCGGCGCCCCCGTGTCTGCGGTGGCG 180  
 ProAlaGlyGluProTrpValSerValThrAspPheGlyAlaProCysLeuArgTrpAla 60  
  
 GAGGTGCCACCCTTCCCTGGAGCGGTCCGCCCCCAGCGAGCTGGGCTCAGCTGCCGAGGACAG 240  
 GluValProProPheLeuGluArgSerProProAlaSerTrpAlaGlnLeuArgGlyGln 80  
  
 CGCCACAACCTTTGTTCGGAGCCCCCGACGGCGCGGGCAGACCCCTGGTGTTCCTACGGAGAC 300  
 ArgHisAsnPheCysArgSerProAspGlyAlaGlyArgProTrpCysPheTyrGlyAsp 100  
  
 GCCCGTGGCAAGGTGGACTGGGGCTACTGCGACTGCAGACACGGATCAGTACGACTTCGT 360  
 AlaArgGlyLysValAspTrpGlyTyrCysAspCysArgHisGlySerValArgLeuArg 120  
  
 GGCGGCAAAATGAGTTTGAAGGCACAGTGGAAAGTATATGCAAGTGGAGTTTGGGGCACT 420  
 GlyGlyLysAsnGluPheGluGlyThrValGluValTyrAlaSerGlyValTrpGlyThr 140

Fig.8

GTCTGTAGCAGCCACTGGGATGATTCTGTATGCATCAGTCATTTGTCAACAGCTGCAGCTG	480
ValCysSerSerHisTrpAspSerAspAlaSerValIleCysHisGlnLeuGlnLeu	160
GGAGGAAAAGGAATAGCAAAACACCCCGTTTCTGGACTGGGCCCTTATTCCTCATTTAT	540
GlyGlyLysGlyIleAlaLysGlnThrProPheSerGlyLeuGlyLeuIleProIleTyr	180
TGGAGCAATGTCCGTTGCCGAGGAGATGAAGAAAATATACCTTTGTGAAAAAGACATC	600
TrpSerAsnValArgCysArgGlyAspGluGluAsnIleLeuLeuCysGluLysAspIle	200
TGGCAGGGTGGGGTGTCTCCTCAGAAAGATGGCAGCTGCTGTCAACGTGTAGCTTTTCCCAT	660
TrpGlnGlyGlyValCysProGlnLysMetAlaAlaValThrCysSerPheSerHis	220
GGCCCAACGTTCCCCCATCATTCGCCTTGCTGGAGGCAGCAGTGTGCATGAAGGCCGGGTG	720
GlyProThrPheProIleArgLeuAlaGlyGlySerSerValHisGluGlyArgVal	240
GAGCTCTACCATGCTGGCCACGTGGGGAACCGTTTGTGTATGACCAATGGGATGATGCCGAT	780
GluLeuTyrHisAlaGlyGlnTrpGlyThrValCysAspAspGlnTrpAspAlaasp	260
GCAGAGTGATCTGCAGGCAGCTGGGCCCTCAGTGGCATTTGCCAAAGCATGGCATCAGGCA	840
AlaGluValIleCysArgGlnLeuGlyLeuSerGlyIleAlaLysAlaTrpHisGlnAla	280

Fig.9

TATTTTGGGAAGGGTCTGGCCAGTTATGTTGGATGAAGTACGCTGCACCTGGGAATGAG 900  
TyrPheGlyGluGlySerGlyProValMetLeuAspGluValArgCysThrGlyAsnGlu 300

CTTTCAATTGACAGTGTCCTCAAGAGCTCCTGGGAGAGCATAACTGTGGCCATAAAGAA 960  
LeuSerIleGluGlnCysProLysSerSerTrpGlyGluHisAsnCysGlyHisLysGlu 320

GATGCTGGAGTGTCCTGTACCCCTCTAACAGATGGGGTCATCAGACTTGCAGGTGGGAAA 1020  
AspAlaGlyValSerCysThrProLeuThrAspGlyValIleArgLeuAlaGlyGlyLys 340

GGCAGCCATGAGGGTCGCTTGGAGGTATATTACAGAGGCCAGTGGGGAACTGTCTGTGAT 1080  
GlySerHisGluGlyArgLeuGluValTyrTyrArgGlyGlnTrpGlyThrValCysAsp 360

GATGGCTGGACTGAGCTGAATACATACGTGGTGTTCGACAGTTGGGATTTTAAATATGCT 1140  
AspGlyTrpThrGluLeuAsnThrTyrValValCysArgGlnLeuGlyPheLysTyrGly 380

AAACAAGCATCTGCCAACCATTTTGAAGAAAGCACAGGCCCATATGTTGGATGACGTC 1200  
LysGlnAlaSerAlaAsnHisPheGluGluSerThrGlyProIleTrpLeuAspVal 400

AGCTGCTCAGGAAAGGAAACCAGATTTCTTCAGTGTTCAGGCCGACAGTGGGAAAGGCAT 1260  
SerCysSerGlyLysGluThrArgPheLeuGlnCysSerArgArgGlnTrpGlyArgHis 420

Fig.10

GACTGCAGCCACCGGAAGATGTTAGCATGTCCTGCTACCTGGCGGCGGACACAGG	1320
AspCysSerHisArgGluAspValSerIleAlaCysTyrProGlyGlyGluGlyHisArg	440
CTCTCTCTGGGTTTCCTGTCAGACTGATGGATGGAGAAAATAAGAAAGGACGAGTG	1380
LeuSerLeuGlyPheProValArgLeuMetAspGlyGluAsnLysLysGluGlyArgVal	460
GAGGTTTTTATCAATGGCCAGTGGGGAACAATCTGTGATGGATGGACTGATAAGGAT	1440
GluValPheIleAsnGlyGlnTrpGlyThrIleCysAspAspGlyTrpThrAspLysAsp	480
GCAGCTGTGATCTGTCTCAGCTTGGCTACAAGGGTCTGCCAGAGCAAGAACCATGGCT	1500
AlaAlaValIleCysArgGlnLeuGlyTyrLysGlyProAlaArgAlaArgThrMetAla	500
TACTTTGGAGAAAGGAAAGGACCCCATCCATGTGGATAATGTGAAGTGCACAGGAAATGAG	1560
TyrPheGlyGluGlyLysGlyProIleHisValAspAsnValLysCysThrGlyAsnGlu	520
AGGTCCTTGGCTGACTGTATCAAGCAAGATATTGGAAGACACAACCTGCCCCACAGTGAA	1620
ArgSerLeuAlaAspCysIleLysGlnAspIleGlyArgHisAsnCysArgHisSerGlu	540
GATGCAGGAGTTATTGTGATTTATTGGAAGAAGCCCTCAGGTAACAGTAATAAAGAG	1680
AspAlaGlyValIleCysAspTyrPheGlyLysLysAlaSerGlyAsnSerAsnLysGlu	560

Fig.11

TCCCTCTCATCTGTTTGTGGCTTGAGATTACTGCACCGTCGGCAGAAAGCGGATCATTTGGT	1740
SerLeuSerSerValCysGlyLeuArgLeuLeuHisArgArgGlnLysArgIleIleGly	580
GGGAAAAATTCTTTAAGGGTGGTTGGCCCTTGGCAGGTTTCCCTCCGGCTGAAGTCATCC	1800
GlyLysAsnSerLeuArgGlyGlyTyrProTrpGlnValSerLeuArgLeuLysSerSer	600
CATGGAGATGGCAGGCTCCTCTGTCCGGGGCTACGCTCCTGAGTAGCTGCTGGGTCCTCACA	1860
HisGlyAspGlyArgLeuLeuCysGlyAlaThrLeuLeuSerSerCysTrpValLeuThr	620
GCAGCACACTGTTTCAAGAGGTATGGCAACAGCACTAGGAGCTATGCTGTAGGGTTGGA	1920
AlaAlaHisCysPheLysArgTyrGlyAsnSerThrArgSerTyrAlaValArgValGly	640
GATTATCATACTCTGGTACCAGAGGAGTTTGAGGAAGAAATTGGAGTTCACAGATTGTG	1980
AspTyrHisThrLeuValProGluGluPheGluGluIleGlyValGlnIleVal	660
ATTTCATCGGGAGTATCGACCCGACCGCAGTGATTATGACATAGCCCTGGTTAGATTACAA	2040
IleHisArgGluTyrArgProAspArgSerAspTyrAspIleAlaLeuValArgLeuGln	680
GGACCAGAGCAATGTGCCAGATTACGAGCCATGTTTGGCCAGCCCTGTTTACCACCTC	2100
GlyProGluGlnCysAlaArgPheSerSerHisValLeuProAlaCysLeuProLeu	700

Fig.12

TGGAGAGAGGCCACAGAAACAGCATCCAACCTGTTACATAACAGGATGGGGTGACACA	2160
TrpArgGluArgProGlnLysThrAlaSerAsnCysTyrIleThrGlyTrpGlyAspThr	720
GGACGAGCCTATTCAAGAACACTACAACAAGCAGCCATTCCCCTTACTTCCTAAAAGGTTT	2220
GlyArgAlaTyrSerArgThrLeuGlnGlnAlaIleProLeuLeuProLysArgPhe	740
TGTGAAGAACGTTATAAGGGTCGGTTTACAGGGAGAAATGCTTGTGCTGGAAACCTCCAT	2280
CysGluGluArgTyrLysGlyArgPheThrGlyArgMetLeuCysAlaGlyAsnLeuHis	760
GAACACAAACGCGTGACAGCTGCCAGGAGACAGCGGAGGACCACTCATGTGTGAACGG	2340
GluHisLysArgValAspSerCysGlnGlyAspSerGlyGlyProLeuMetCysGluArg	780
CCCGGAGAGAGCTGGGTGGTGTATGGGTGACCTCCTGGGGGTATGGCTGTGGAGTCAAG	2400
ProGlyGluSerTrpValValTyrGlyValThrSerTrpGlyTyrGlyCysGlyValLys	800
GATTCTCCTGGTGTATATACCACAAAGTCTCAGCCTTTGTACCTTGGATAAAAAGTGCACC	2460
AspSerProGlyValTyrThrLysValSerAlaPheValProTrpIleLysSerValThr	820
AAACTGTAAATTCCTTCATGGAAACTTCAAAGCAGCATTTTAAACAAATGGAAACTTTGAAC	2520
LysLeu**	822
CCCCACTATTAGCACTCAGCAGAGATGACAAACGCGCAAG	2562

Fig.13

